How to teach entrepreneurship education to culinary students? Case studies of school enterprise program in Indonesia

¹Ida Nugroho Saputro, ²Tuatul Mahfud, ³Yogiana Mulyani, ⁴Muhammad Nurtanto

Abstract-- The study of entrepreneurial learning in schools has been widely reviewed, however, is limited to aspects of the theory. This study aims to find out how to teach entrepreneurship education in culinary schools. This study used a qualitative approach with case studies design. The result revealed that: (1) entrepreneurship education is considered very important to create new jobs in the culinary field; (2) entrepreneurial learning in culinary schools requires experiential learning (e.g., school enterprises); (3) the goal of the school enterprise program is to obtain funding sources to finance school program (short-term) and train students to become self-employees (long-term). The findings of this study discuss in depth and some implications for vocational education practitioners proposed for further improvement in entrepreneurial learning. The implication was that entrepreneurship learning in vocational schools requires a relationship between entrepreneurship education and student vocational skills.

Keywords-- entrepreneurship learning, school enterprise, production unit, experiential learning, vocational learning

I INTRODUCTION

The importance of entrepreneurship for economic development has been widely recognized in recent years [1]–[3]. Entrepreneurial attitudes, behavior, and skills play an important role in educational planning [4], [5]. So it is not surprising that the world of education, especially vocational education (e.g., culinary school), is also involved in preparing human resources for competitive entrepreneurs [6]. The proof, many vocational schools include entrepreneurship education in their curriculum [7], [8], and have even begun to be applied to primary and secondary schools [9]. The seriousness of vocational schools to manage entrepreneurship education is also proven by many studies that discuss the relevance and practice of entrepreneurship in vocational schools [10]–[13], especially in culinary schools [14], [15]. Previous studies conducted on the scope of education are a form of response to the needs of companies that require individual and organizational capacity, the ability to transform new ideas, the ability to change technologies and inventions into economic and social value, also through innovative business models [16], [17]. Entrepreneurship education is considered to be very relevant for assessing future employment prospects [18]. Also, the entrepreneurial skills are one of the demands to become a chef [19], [20]; this is important

¹Building Engineering Education Department, Sebelas Maret University, Indonesia

²Hospitality Department, Balikpapan State Polytechnic, Indonesia; E-Mail: <u>tuatul.mahfud@poltekba.ac.id</u>

³Hospitality Department, Balikpapan State Polytechnic, Indonesia;

⁴Mechanical Engineering Education Department, Universitas Sultan Ageng Tirtayasa, Banten, Indonesia

for students in culinary schools. However, how do you teach entrepreneurship education to culinary students? this study is still limited and unclear.

One of the main problems in entrepreneurship is how the subject can be taught well [21]. Entrepreneurship education in vocational schools is still faced with problems to be able to transform students who can create new business opportunities through practice-oriented learning, and targets for developing entrepreneurial skills [22], [23]. Teachers are still struggling to find appropriate educational goals, and little is known about effective teaching techniques for entrepreneurial education [24], [25]. Also, there is still a mismatch between what educators and other stakeholders want in educating entrepreneurship with an applied pedagogical approach, and indicators of its success [22]. The inhibiting factors that graduates often find to start a new business include lack of general business knowledge, contradictory advice from external institutions, lack of sector-specific mentors, and lack of financial resources or entrepreneurial family experience [26], [27]. Besides, the root of the problem of implementing entrepreneurship education in vocational schools includes the gap between entrepreneurial theory and practice [28], [29]. Realistic, action-oriented, and competency-based learning and experience are the most effective for learning entrepreneurship [29]-[31]. The base of entrepreneurial pedagogical experience must also be based on entrepreneurial practices [29], [32]. One of the developments of effective entrepreneurial learning practices in vocational schools is learning through school enterprise programmed. School enterprise learning creates awareness of real business problems, broadens personal networks and fosters entrepreneurial attitudes. In the process of action learning, conceptual and practical points can be linked to entrepreneurial education in a school business context [31], [33].

Building on this broad database can build an almost unanimous consensus that the practice of entrepreneurial learning in schools (e.g., culinary school) will be useful when integrated with school enterprise learning [31], [34]—[36]. In entrepreneurship learning through school enterprise, a student acquires knowledge from experience, experimentation and by following others, then places new information along with previously received information and organizes internalized knowledge for actions [37]. Thus, the purpose of this study is to investigate how to teach entrepreneurship education in culinary schools. Specifically, the objectives of this study are as follows:

- 1. To explore the teacher's perception of the significance of entrepreneurship education in culinary school.
- 2. To investigate the praxis of entrepreneurial learning through a school enterprise in culinary school.
- 3. To explore the goals of entrepreneurial learning through the activities of school enterprise in culinary school.

II LITERATURE REVIEW

1) Entrepreneurship and Entrepreneurship Learning

Entrepreneurship is now seen as a driving force for the new economy and creative business. It played a significant role in making policies about primary competencies for the twenty-first century [38]. Entrepreneurial skills are considered appropriate for dealing with the uncertainty of future work needs. This is because an entrepreneur can create innovation under conditions of risk and uncertainty. Entrepreneurs are interpreted as

individuals who can create and capture opportunities, and combine resources in innovative ways in the economic growth model [39]. Entrepreneurship is also a 'dialogue between individuals and projects - that is, effort' [40]. Continuous research on entrepreneurship has mainly been done, and many experts agree that the development of a cumulative theory for entrepreneurship is still incomplete [41], [42]. Also, according to the post-positivist view that entrepreneurial theory is a fragmented field because of the creation of diverse meanings in different social constructions [43].

The lack of a coherent entrepreneurial theory directs educators to adopt a contingency approach from the scientific field that is relevant for presenting activities that are driven by theory for entrepreneurship courses [42]. While entrepreneurs are people, who create new business opportunities in the context of the formation of organizational structures that will detect and track opportunities [44]. In other words, entrepreneurs are identified as careers that continuously create good values, take risks, face challenges and obstacles [45]. Until now, entrepreneurship education has played a vital role in pursuing entrepreneurial initiatives to provide a high-quality entrepreneurial workforce [46], [47]. The importance of entrepreneurship education is now increasing, both implemented by teaching entrepreneurship [46] or with the recognition of entrepreneurial competencies needed for lifelong learning and at all levels of school [48].

The principle of teaching about entrepreneurship is aimed at giving students a general perspective and understanding of entrepreneurship as a phenomenon [49]. Meanwhile, A. Gibb & Price [39] stated that entrepreneurial teaching is designed to maximize the potential to stimulate entrepreneurial attributes and insights and equip participants to act. In particular, it focuses on practicing behavior, developing skills and strengthening the attributes associated with being an enterprising person. According to Ahmad, Abu Bakar, & Ahmad [29], in entrepreneurial learning can be said that no single teaching method is suitable for achieving learning goals, there must be a collaboration between theory and practice to ensure future innovation. Therefore, instructors who teach entrepreneurship must consider contextual factors and elaborate on some teaching methods to provide students with the various skills needed and current knowledge of entrepreneurial processes. So that, teachers can develop an 'entrepreneurial mindset' in the classroom environment to create new businesses [39].

Entrepreneurship learning is developed based on real experience, and it can be linked to the learning mode of reflective observation (RO) from transforming experience into knowledge [30], [50]. Both positive and negative experiences contribute to the knowledge of entrepreneurs and provide guidance in making choices, where employers can continue to develop activities [51], [52]. Besides, according to Fiet [42], [53] that in the learning process a teacher must intervene to facilitate the process of theory in experiential learning. The characteristics of the new paradigm of entrepreneurial learning include four aspects which include: (1) student roles (for example, linked learning to a need for action), (2) approaches (for example, experiential / action oriented), (3) focus (for example, competence development), (4) tutor role (for example, tutor as facilitator) [54].

2) School Enterprise Learning

Instructional in entrepreneurship educational theory and applications have been offered as part of various academic programs and courses in business schools for years [55]–[57]. The most effective instructional in

entrepreneurial learning is facilitating entrepreneurial experiments in business simulations or role plays [58] and experiencing elements of the real situation [42], [53]. One of the instructional models that can be applied is through school enterprise activities. School enterprises are combining market production with systematic vocational learning [59]. School-based enterprise or school enterprise can be defined as school-sponsored activities that involve a group of students in producing goods or services to be sold to or used by someone other than students involved [60]. Similarly, Dydimus, Masli, and Idek [61] stated that school enterprise is an approach to learning that aims to foster students' entrepreneurial skills and improve their competence in managing business projects. This learning model challenges teachers to incorporate 'enterprise flavor' into their curriculum materials [62].

School enterprises provide knowledge from experience, experimentation and by following others, then placing new information along with previously acquired information and managing knowledge internalized for action [37]. Stern et al. [60] stated that the benefits of applying school enterprise include: a deeper understanding of academic subject matter through application in a practical context, motivation derived from solving problems with direct consequences, and general work skills (such as collaborating on teams and knowing how to use work as experience learn). In school enterprise learning, students provide individual and communal information for each situation asked. They learn entrepreneurship by using information and experience in their activities [63], [64]. Also, the schooleEnterprise program provides several benefits such as increased entrepreneurial intentions, improved company attitudes, increased business knowledge, and more new companies [65]. According to A. Gibb & Price [39], the enterprise concept focuses on developing active people and enterprising mindsets through demonstrations of skills, behavior and courageous attitudes in various contexts. The focus is on creating entrepreneurial ways in the form of feeling, thinking, communicating, managing, and learning.

The approach to entrepreneurship learning through school enterprise activities is included in project-based learning. Project-based learning approaches are effective in teaching entrepreneurship [66], [67]. Experimental and action-based learning activities, followed by reflection can help students build trust in their individual and team skills because they work in real business settings [58]. In this learning situation, students learn to face uncertain, complicated, and stressful situations [58]. According to Robinson & Malach [68], leaving the comfort zone and working under pressure is a valuable learning experience for future entrepreneurs.

School enterprise in different terms in Indonesia is known as the production unit interpreted as a place to produce goods or services to get the agency's income to be more independent, besides that the benefits obtained can be used to subsidize the cost of learning for students [69]. Singh [59] states that school enterprise can provide benefits in increasing income in sustaining one's welfare. Besides, the production unit is a program that integrates learning with the production process, students have direct experience working in the industry, and it is hoped that the entrepreneurial spirit can also develop [70]. According to A. Gibb [71], school enterprise has three leading roles, namely learn to understand entrepreneurship, learn to become entrepreneurial, learn to become an entrepreneur. In other words, a school-enterprise program is a business unit of a school that aims to produce marketable goods or services. Furthermore, the benefits derived from marketing these products are used to help finance schools and improve the welfare of school dwellers.

III RESEARCH METHOD

This study is related to some instances where individual events and functions are explained in certain real-world environments [72]. We rely on a qualitative case study conducted at one of the state vocational high schools in the Special Region of Yogyakarta-Indonesia to illustrate how entrepreneurship learning through enterprise schools in culinary schools. Data were collected during one semester of 2019 in one of the state vocational high schools in the Special Region of Yogyakarta-Indonesia. Study data collection was carried out in several stages. The first stage is orientation, in which case the researcher collects general and broad data about things that stand out, are impressive, valuable, and are useful for further research. In the second stage, the researcher conducted an exploration of data collection, which was conducted more focused on the focus of the study and knew the data sources or informants who were competent and had adequate knowledge about the things to be studied. The focus of this study consists of, first, to capture teachers' perceptions of entrepreneurial learning; second, how to model entrepreneurship learning in culinary schools; and finally, how the objective of entrepreneurship learning through enterprise schools in culinary schools. Specifically, this study uses some of the interview questions presented in Table 1.

Table 1: Interview Questions

No	Study Purpose	Research questions		
1	Teacher's perception of entrepreneurship education	What are the goals of students studying in culinary schools?		
		What is the importance of vocational students learning entrepreneurship, and why?		
		What do you think about entrepreneurship teaching materials in culinary schools?		
		What are the criteria for entrepreneurship teachers in culinary schools?		
2	The praxis of entrepreneurship education through school enterprise	How is the proportion of entrepreneurial teaching material between theory and practice in culinary schools?		
		What methods are suitable for teaching entrepreneurship in culinary schools?		
		Are practitioners involved in the teaching process?		
		What is the concept of entrepreneurship learning through school-enterprise programs in culinary schools?		
3	The objectives of entrepreneurial learning through the school enterprise program	What are the goals of entrepreneurship learning through school enterprise programs?		
		How does the school enterprise program function in a culinary school?		

Data collected. Data was collected through semi-structured interviews, participant observation, and archive analysis. Semi-structured interviews were conducted involving Headmaster, Head of The Culinary Department, Chairman of The School Enterprise, 15 Teachers of The Culinary Department, and five students (see Table 2). Interviews were carried out intentionally to get an understanding of teacher perceptions about the importance of entrepreneurial learning, entrepreneurship learning models, and entrepreneurial learning outcomes through the school-enterprise program. Interviewees are experienced about investigative issues and are willing to participate

in this study. Interviews were carried out during the study process and until getting full information. Also, this study uses participant observation in three culinary department classes. In addition to semi-structured interviews and observations, we also use an archive analysis of guidelines for administering school-enterprise programs, school-enterprise program plans, student job sheets, job descriptions, and student officer schedules for school-enterprise programs.

Table 2: Respondent

Two to the spondent							
No	Respondent	Amount					
1	Headmaster (teacher)	1					
2	Head of The Culinary Department (teacher)	1					
3	Chairman of The School Enterprise (teacher)	1					
4	Teachers of The Culinary Department	15					
5	Student	5					

Data analysis. Data analysis of this study uses Analysis Interactive Model [73], which divides analysis activities into several parts, namely: data collection, grouping according to variables, data reduction, data presentation, separating outlier data, and drawing conclusions or verifying data. Initially, we conducted data encoding, which included interview transcripts, observation notes, and archive analysis. Coding includes information on main variables, informants, time, and methods of data collection. After the coding step, the grouping is based on the focus of the study consisting of teachers' perceptions of the importance of entrepreneurial learning, entrepreneurial learning methods, and entrepreneurial learning outcomes. At this stage, we found irrelevant data, so this type of data could be removed and not used. Next, we carry out the process of presenting data, interpreting data, and making study conclusions.

Research credibility. The dependence of the study on three primary data sources (ie, interviews, participant observation, and archive analysis) enables the triangulation of data sources [74]. The triangulation process of this study uses comparable data from various sources, including the headmaster, teachers, and students. Besides, subjective involvement from researchers must be avoided in case studies [72]. So the development of the conception of researchers based on the context of research conducted must be significant [75]. Therefore, in order to guarantee the data validity of this study, the researcher has mastery in the culinary and vocational education fields. Also, researchers have managed the enterprise school program in culinary schools. Prolonged participant observation activities allow us to be directly involved during the learning process, to strengthen the relationship and the credibility of the findings. Respondents were asked to examine and read transcripts, correct and confirm transcribed data. The process of checking respondents strengthens the validity of research by enabling respondents to ensure that data provide an accurate representation of the experience experienced [76], [77].

IV FINDING

1) The importance of entrepreneurship education in culinary school

Culinary school teachers have realized the benefits of entrepreneurship education in preparing skilled and highly competitive human resources. They also believe that culinary school graduates can shape the independence of students for a career as an employee or employer. That is, culinary schools can prepare students to be ready to work in industry or entrepreneurship. The headmaster of the culinary school stated that:

We look forward to educating children who can compete in this global era and capable of being a reliable human resource (HR), who can support themselves and support others.

One of the teachers also conveyed the same thing that entrepreneurial learning through school enterprise (e.g., production unit) activities is significant for vocational high school students as a place for entrepreneurship practice in their area of expertise. To train students to become successful entrepreneurs, armed with the talents of students is not enough, but students must also know all aspects of the business that will be studied so that the skills of students can be developed through entrepreneurship education in schools. The Head of the Culinary Department said:

Yes, to become entrepreneurs are not quite armed with interest or hobbies but need to master the skills of the field of expertise. For example, students are given cake and bread making skills to develop a business patisserie.

The school has conducted several programs to train students to become entrepreneurs, including entrepreneurship education in the learning curriculum, both in the normative, adaptive and productive subject groups. Besides, the existence of a policy of character education from the government has encouraged schools to develop curriculum by incorporating entrepreneurial values into subjects. Entrepreneurial values such as responsibility, discipline, hard work, creative, independent, and curiosity are part of the fundamental values of character education. One teacher of the culinary school revealed as follows:

The practice of entrepreneurial learning is essential to instill entrepreneurship values in children such as the value of good relationships, honesty, motivation, unyielding spirit, dare to take risks and others. Now, these values are part of the character education that must be transferred and internalized to the students either in junior high, high school, or vocational school. Thus, specifically in the character education, the vocational high school has a purpose of training children to carry out their business independently.

The implementation of character education in the form of entrepreneurship values has been applied to several subjects. These values include daring to take risks, never give up, be creative and others. These values are contained in the curriculum as a hidden curriculum. This was expressed by one of the teachers from the culinary school, as follows:

Implementation in our school, character education goals to shape student behavior through a hidden curriculum. Character education is integrated into all subjects and is contained in the syllabus for lesson preparation. For example, the Citizenship Education teacher in Nationalism, the values of nationalism such as love for the country, the courage to sacrifice, dare to take risks, and have the spirit of never giving up are part of the values of entrepreneurial character.

Besides, entrepreneurship education is not only considered essential for students but also for teachers as educators. A teacher must be able to increase the capacity of entrepreneurial competencies so that the ongoing learning process can have an impact on improving the entrepreneurial skills of learners. The headmaster of the culinary school revealed that:

Increasing the capacity and quality of teachers for entrepreneurial competence is very important and will have an impact on improving the quality of graduates. It is like a domino effect, so when an increase in teacher entrepreneurial competence is achieved, it will improve the quality of students as entrepreneurial candidates who will be able to support themselves and others independently.

2) The praxis of entrepreneurship education through school enterprise

In the learning process, entrepreneurship education teaches students not only theoretical aspects but also practical aspects. This is considered very important to implement the knowledge they get in the entrepreneurship theory class. Thus students are faced with real learning situations that are with entrepreneurship directly. Culinary schools in Indonesia have made school enterprise programs as entrepreneurial learning for students in vocational schools. In Indonesia, this program is known as a school production unit. Business forms developed by culinary schools are catering and hospitality businesses.

The Head of the Culinary Section revealed this, and he stated that entrepreneurship subjects in the form of theory (e.g., normative and adaptive curriculum) were still considered unable to form students to become entrepreneurs. Therefore, it takes real entrepreneurship learning activities or real, that is by involving students in the activities of the school enterprise (e.g., production units) (head of the culinary department). Moreover, she added his statement:

The entrepreneurship learning process still requires a theory aspect other than practice. For example, the theory of the types of business and the characteristics of an entrepreneur. Students learn entrepreneurship theory on entrepreneurship subjects, while the entrepreneurial practice is taught in the training of production units in schools.

The headmaster of the vocational high school in the culinary department affirmed the statement from the Head of the culinary department, and he revealed that:

Entrepreneurship learning requires direct practice. Although learning the theory for 10-15 hours can not educate students to become entrepreneurs, it is because students are not faced with the problem, not met with real service, and not at risk.

Knowledge gained by students when studying in the classroom in the normative (e.g., citizenship and language subject), adaptive (e.g., entrepreneurship and a natural science subject), and productive curriculum (e.g., food preparation and processing subject) will be applied to students in learning activities in the production unit. One of the teachers revealed that "learning in the production unit is learning to apply the knowledge that has been acquired in class and practiced through production units. So school enterprise is like an estuary of all theories". In this case, the school enterprises are realized as a place for training students 'skills and the formation of students' entrepreneurial intention. Also, the learning process is not enough to rely solely on teachers to shape student competencies to become entrepreneurs. However, it is necessary to collaborate with other teaching methods, such as bringing guest teachers from business people (see table 3).

Table 3: Summary of the results of triangulation of entrepreneurial learning methods in culinary school

Methods	Learning	Interview result	H	T	S
Passive methods	Activities Lecture and exams	There are entrepreneurial subjects with theoretical content.	V	√	
	Guest speaker	Every semester, the school invites successful entrepreneurs in the culinary field to present their business experiences and provide entrepreneurial motivation to culinary school students.	V	V	
Active methods	Business plan	Students must make a clear group business plan and submit it to the accompanying teacher as a proposed business practice in the school enterprise which includes product plans, market segments, cost requirements (e.g., food cost), and business organizational structure.	1	V	√
	Mentoring	Each group of students will get one teacher to accompany the implementation of the business by students. The teacher will request a report every month against the progress of the business being carried out.	V	V	√ √
Experiential methods	Project-based learning	The approved student business plan will get the capital cost to manage the school enterprise in the type of catering business in the school. The implementation of this catering business includes inside catering (inside the school) and outside catering (outside of school).	V	V	√
	Role play method	The task of the group must determine the structure of the business organization, including the manager, production, marketing, and finance. Also, make job description of each position.	V	V	√

Note: H = Headmaster; T = Teacher (includes the head of the culinary department and the head of the school enterprise); S = Student

This study revealed that culinary schools apply to learn methods in an eclectic way, including by elaborating on the three entrepreneurial learning methods (Figure 1 and Table 2). First, the passive method approach is shown by applying lecture and business planning methods; second, the active method is expressed by the implementation of guest speaker and mentoring programs. Finally, the experiential method is indicated by the application of project-based learning and role play methods. Thus, the school enterprise program combines passive, active and experiential approaches. Besides, school enterprise is also a learning concept that combines production-based learning and competency-based learning (Figure 2).

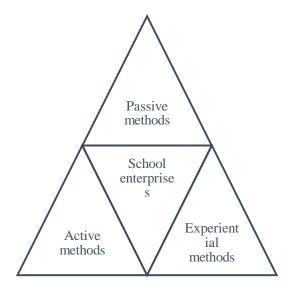


Figure 1: The entrepreneurial learning methods in culinary school.

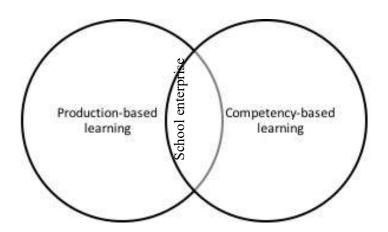


Figure 2: A combination of learning approaches in school enterprise programs

3) The objectives of entrepreneurial learning through the school enterprise program

According to the Headmaster of a culinary school, the short-term objective of the school enterprise program is to finance school operations, and he revealed that:

The short-term objective of implementing production unit activities is to earn income for schools to help with school operational costs or school activities. Beside, this program also trains teachers to have a willingness to educate their students' children so that children have the capital and entrepreneurship.

The enterprise school program in culinary schools has provided several benefits for schools, teachers, and students. One of the benefits for schools is that profits are used to finance operational learning activities in schools such as the purchase of lab equipment. While the benefits for teachers are as a means of self-development and improvement of teacher welfare. Teachers who are involved in the enterprise school program will receive profit sharing, as well as students will get profit-sharing from the school entrepreneur program. One student in an

interview said that "At the end of the enterprise school program, I got earnings, and all the students involved also got it." The same thing was said by one of the teachers; she said:

I think this program is beneficial for students to develop their business skills. Besides, the students involved will later get paid. Wages are not only given to students but also teachers involved. Furthermore, most importantly, the teachers also learned how to manage the business together with students.

The implementation of the school enterprise program is not only oriented to the profit gain but also still prioritize the value of education both for students and for the teacher itself. One of the vocational high school teacher revealed that "We are not just a profit orientation but rather to provide a hands-on learning experience and direct practice of entrepreneurship."

Whereas the long-term goal, entrepreneurship learning through the school enterprise program is expected to enable students to become self-employees, i.e., employers for themselves and others. The headmaster of the culinary school said that:

I think the long-term objective is to educate the students independently, able to compete in the global era, capable of being a resilient human resource, and ready to support themselves and support others in getting income.

Besides, the school enterprise program can also function as an alternative place for industrial practice for students who do not get an apprenticeship in the hospitality industry. Some factors can cause students not to be able to an apprenticeship in the hospitality industry, among others, because; 1) health factors; 2) skill factors; and 3) disciplinary factors. According to the Chairman of the school enterprise in an interview revealed that:

Some students should be apprentice participant but are placed in school. This is because his health is not good, his skills are lacking, and lack of discipline. Then we put an apprenticeship in the school enterprise in our school.

Moreover, based on observations by researchers in one of the school enterprise that is school catering, some students are an apprenticeship in the school enterprise. Below are the results of his observations:

The researcher today observed the activities of the production unit (school enterprise) at the vocational high school. Incidentally today the production unit is getting orders to prepare the committee's consumption, and examiners of the 3rd-grade students' competency exams cover all majors. Students involved in this production unit activity are 2nd graders who are industrial practicing at the school production unit for three months from January to March, they are four people.

V DISCUSSION AND SUGGESTIONS

1) The importance of entrepreneurship education in culinary school

Entrepreneurship education is considered very important to be implemented in vocational high schools (eg, culinary schools). The Indonesian government made a policy that the output of vocational high school students could become employees, entrepreneurs, or continue their studies in higher education. This policy was the reason that drives all vocational high schools in Indonesia to implement a school-enterprise program. Preparing students into an entrepreneur is not enough to only possess the talents, but also must know all aspects of the business that will be studied. Students can develop their abilities through education in their schools. This also refutes the assumption that entrepreneurship is an innate talent and cannot be learned and taught. Similarly, Metcalfe [78] stated that entrepreneurship can be taught and that entrepreneurship education increases the chances of success of startups.

This study result reveal that teachers have realized awareness of the importance of entrepreneurship education in culinary school. This finding is reflected in the learning process that has held the activities of the school-enterprise program as one of the learning facilities of students in practicing productive skills and entrepreneurship skills with direct application. According to Singh [59] that the organization of the school-enterprise program is useful in developing entrepreneurship skills to meet the needs of the community and in the development of goods or services tailored to the needs of the community. The teachers also understand that entrepreneurship education is able to prepare future workforce needs. Similar, Daniel et al. [18] states that entrepreneurship education is considered highly relevant for assessing future employment prospects.

Entrepreneurship learning in culinary schools is considered very important because culinary students have an excellent opportunity to create new businesses in the culinary field. The culinary school curriculum has been designed so that students master technical skills such as cooking. These technical skills are indeed essential to start a new business. However, these skills are not enough to be able to create new businesses properly, and students also need to learn entrepreneurship education to support the creation of new businesses. Thus, the collaboration between culinary and entrepreneurship teaching materials is expected to be able to create new entrepreneurs in the culinary field. The issue of preparing new entrepreneurs is essential in answering the problem of unemployment in Indonesia. Unemployment rate in Indonesia is still dominated by vocational graduates [79]. The lack of job opportunities is also a factor influencing the unemployment rate. Therefore, a solution is needed to solve the unemployment problem by creating new businesses.

Also, entrepreneurial learning at culinary school has supported one of the Indonesia government's policies on the implementation of character education at every level of education including vocational high school [80]. Because entrepreneurial values are part of the fundamental values of character education such as responsible, disciplined, hard work, creative, and independent. These values can be integrated into the learning of each subject. So that the cultivation of entrepreneurship values can be applied widely, not only used to entrepreneurship course but can also be integrated into all subjects.

2) The praxis of entrepreneurship education through school enterprise

Models and systems of education in vocational schools should support the creation of new entrepreneurial through entrepreneurship education. Entrepreneurship education is expected to be able to train the ability of reason and entrepreneurship talents of students to open new jobs by their areas of expertise. It is a solution in dealing with educational issues that most educational institutions are only able to prepare candidates who can work on the type of technical work (routine & manual work). Moreover, have not led to the preparation of workers working in the kind of work at the top of job charts such as managerial work and creating new jobs (creative work) [81], [82].

Interestingly, entrepreneurship is an essential skill for students who will prepare them self in the workforce inside future's network especially in the demands of the 21st century [81]. 21st-century vocational students need an academic opportunity that challenges them to solve complex problems, make rational decisions, put forward convincing arguments for their solutions to problems encountered [83], creativity, and critical thinking [84]–[86]. Academic opportunities are obtained students on entrepreneurial learning through the school enterprises. This condition can be achieved if the entrepreneurship education given to the students is not just the teaching of theory

alone, but also the direct application that is by involving the students directly in the real activities of entrepreneurship in the field of expertise.

Culinary school has developed curricula by incorporating entrepreneurial values into other subjects both normative, adaptive and productive subjects. These values have been contained in the curriculum in the form of a hidden curriculum. However, so far, these efforts have not been able to prepare students to become entrepreneurs, including the subject of entrepreneurial theory. Therefore, it takes real entrepreneurial learning activities, namely by involving students in school enterprise activities. In the context of vocational education, learning through hands-on experience is very important to produce effective vocational training [89].

Many choices of entrepreneurial learning methods [29]. In the context of entrepreneurship learning in culinary schools, it is very demanding that their skills are compatible with the business fields of interest. The implementation of school entrepreneurship programs in culinary schools collaborates on various learning methods such as passive methods, active methods, and experiential methods. These three methods must be applied collaboratively in entrepreneurship learning in culinary schools. Passive methods emphasize the importance of the teacher's role, and active methods encourage the role of entrepreneurial practitioners involved in the learning process. Also, experiential methods encourage students to be directly involved in real entrepreneurial activities.

Thus, the school enterprise program combines passive, active and experiential approaches. Besides, school enterprise is also a learning concept that combines production-based learning and competency-based learning. Similarly, according to Stern et al. [60], the school-based enterprise is a production activity involving students. So it can be concluded that students when engaged in production-based learning, they are also training their competence (competency-based learning). Thus, learning of entrepreneurial is not only done on the cognitive level, but touches on internalization, and real practice in the form of student involvement to manage the business in the school enterprises.

3) The objectives of entrepreneurial learning through the school enterprise program

Entrepreneurship learning through school-enterprise programs provides positive benefits for schools, teachers, and students. Good program implementation is expected to be able to realize the objectives of this program. The results of the study revealed that the goals of the enterprise school program in culinary schools include short-term and long-term goals. The short-term goal of the school-enterprise program is to get funding sources for school finance activities and programs. Profits from enterprise school programs are used by schools to finance learning programs in schools, such as the purchase of lab equipment. In addition, the teachers and students involved getting profit-sharing as their salary. This finding shows that the enterprise school program also provides an increase in the income of teachers and students.

Besides, the long-term goal is to train students to become self-employees who create new jobs or new businesses in the culinary field. This finding is similar to the statement of Honig [46]. He stated that entrepreneurship education is an essential aspect of preparing new entrepreneurs. Besides, the main objective of entrepreneurship education through the enterprise school program in culinary schools teaches how to become an entrepreneur through learning to start a culinary business. This finding is similar to previous studies, which revealed that the objectives of the enterprise school program are 1) to develop a broad understanding of

entrepreneurship; 2) learn to be an entrepreneur; 3) to learn how to become an entrepreneur by learning how to start a business [49].

Teaching students to become entrepreneurs needs to be facilitated with real learning as students learn to manage culinary businesses in the school environment. In this context, the enterprise school program is able to provide real entrepreneurial activities to manage culinary businesses. Although, this program is set in a school environment but it is very useful to give students an idea of how to start a new business in the culinary field. This program also gives students confidence to start a new business. Holcomb et al. [37] stated that enterprise school programs provide benefits to students in the form of knowledge from experience, experiments, and by following others. The new knowledge includes culinary abilities and entrepreneurship. The combination of culinary teaching materials and entrepreneurship through the enterprise school program is considered very appropriate to teach starting and managing a new business.

This program supports the Indonesian government policy which states that one of the outcomes of vocational graduates can be entrepreneurship; also they can also work in the industry or continue their studies [80], [87], [88]. This illustrates that although the school enterprises are business-based learning which profit-oriented but still prioritizes the value of education, as a place for students to practice productive skills and entrepreneurial skills.

Also, school enterprises program in vocational schools can be used as an alternative place of apprenticeship for students who do not get an apprenticeship in the industry for various reasons. School enterprise is a relevant place as an apprenticeship because it is a small industry in vocational schools that are used as a place for student training. The reason students are placed in a school enterprise is due to several factors, including 1) health factors; 2) ability factors; and 3) disciplinary factors.

VI CONCLUSION

Preparing vocational school students especially culinary school students to become entrepreneurs who can create new jobs in their fields is not enough to only have talents owned by students, but also students must have knowledge and skills regarding all aspects of the business they will choose through learning in school. To realize it requires entrepreneurial learning based on real experience that is by involving students directly into the actual activities of entrepreneurship (hands-on experience), one of which is through entrepreneurial education in the school enterprise program. The implementation of the school enterprise program as one of the entrepreneurship learning models in vocational schools can provide benefits in the economic and educational aspects for students and the development of vocational schools. The results of this study are expected to provide implications for vocational education practitioners to develop experiential entrepreneurship learning through the school enterprise program. Also, entrepreneurial learning in vocational schools requires a relationship between entrepreneurship education and student vocational skills. Entrepreneurship classes in vocational schools must be able to combine these two aspects (entrepreneurship and vocational). Thus, vocational education graduates can not only work as employees but can also work as employers.

ACKNOWLEDGEMENTS

We wish to acknowledge that this research has been carried out at the culinary vocational high school in Yogyakarta. We thank all culinary vocational high school student, teacher, and headmaster in Yogyakarta involved in providing data for our project. Finally, we thank the Ministry of Research, Technology and Higher Education of the Republic of Indonesia for research funding support.

REFERENCES

- [1] J. Mason, 'Entrepreneurship in knowledge-based services: Opportunity and challenges for new venture, economic, and workforce development', *J. Bus. Ventur. Insights*, vol. 10, p. e00092, 2018, doi: https://doi.org/10.1016/j.jbvi.2018.e00092.
- [2] S. Shan, Y. Jia, X. Zheng, and X. Xu, 'Assessing relationship and contribution of China's technological entrepreneurship to socio-economic development', *Technol. Forecast. Soc. Change*, vol. 135, pp. 83–90, 2018, doi: https://doi.org/10.1016/j.techfore.2017.12.022.
- [3] S. K. Coulibaly, C. Erbao, and T. M. Mekongcho, 'Economic globalization, entrepreneurship, and development', *Technol. Forecast. Soc. Change*, vol. 127, pp. 271–280, 2018, doi: https://doi.org/10.1016/j.techfore.2017.09.028.
- [4] A. Bauman and C. Lucy, 'Enhancing entrepreneurial education: Developing competencies for success', *Int. J. Manag. Educ.*, p. 100293, 2019, doi: https://doi.org/10.1016/j.ijme.2019.03.005.
- [5] E. B. Bilgiseven and M. Kasımoğlu, 'Analysis of Factors Leading to Entrepreneurial Intention', *Procedia Comput. Sci.*, vol. 158, pp. 885–890, 2019.
- [6] J. C.-K. Lee, M. Pavlova, and R. Maclean, 'School-to-work Transition in Hong Kong: Suggestions for the Vocationalization of Secondary Education', *Curric. Teach.*, vol. 31, no. 1, pp. 47–66, 2016, doi: https://doi.org/10.7459/ct/31.1.04.
- [7] M. Olokundun *et al.*, 'Data article on the effectiveness of entrepreneurship curriculum contents on entrepreneurial interest and knowledge of Nigerian university students', *Data Brief*, vol. 18, pp. 60–65, 2018, doi: https://doi.org/10.1016/j.dib.2018.03.011.
- [8] G. Strauti, V.-M. Dumitrache, and I. M. Taucean, 'Entrepreneurial Competences in Economical Engineering Curriculum in Romania', *Procedia Soc. Behav. Sci.*, vol. 238, pp. 737–742, 2018, doi: https://doi.org/10.1016/j.sbspro.2018.04.057.
- [9] L. Xiao, J. Goodman, and Q. Han, 'Cultivating Entrepreneurship in Primary and Secondary School Students: Action Research on School-based Curriculum Development in Wenzhou, China', *Curric. Teach.*, vol. 28, no. 2, pp. 5–25, 2013, doi: https://doi.org/10.7459/ct/28.2.02.
- [10] S. Top, N. Çolakoğlu, and S. Dilek, 'Evaluating Entrepreneurship Intentions of Vocational High School Pupils Based On Self- Efficacy Concept', *Procedia - Soc. Behav. Sci.*, vol. 58, pp. 934–943, 2012, doi: https://doi.org/10.1016/j.sbspro.2012.09.1072.
- [11] H. Fu, F. Okumus, K. Wu, and M. A. Köseoglu, 'The entrepreneurship research in hospitality and tourism', *Int. J. Hosp. Manag.*, vol. 78, pp. 1–12, 2019, doi: https://doi.org/10.1016/j.ijhm.2018.10.005.
- [12] T. Mahfud, M. B. Triyono, P. Sudira, and Y. Mulyani, 'The influence of social capital and entrepreneurial attitude orientation on entrepreneurial intentions: the mediating role of psychological capital', *Eur. Res. Manag. Bus. Econ.*, 2019, doi: https://doi.org/10.1016/j.iedeen.2019.12.005.
- [13] T. Mahfud and Pardjono, 'The praxis of entrepreneurship learning in food production units (Indonesian version)', *Pendidik. Vokasi*, vol. 2, no. 3, pp. 27–40, 2012, doi: 10.21831/JPV.V2II.1014.

- [14] G. J. A. Aguirre and B. Avendaño, 'Entrepreneurship in culinary arts: The Costa Rica experience with university students', *PASOS Rev. Tur. Patrim. Cult.*, vol. 9, no. 1, pp. 67–80, 2011, doi: 10.25145/j.pasos.2011.09.007.
- [15] S. C. Fonseca, Ri. Pinheiro, C. Barbosa, A. Araújo, M. Vaz-Velho, and R. Alevs, 'Food innovation and entrepreneurship in higher education: a case study', *Int. J. Food Stud.*, vol. 4, no. October, pp. 141–147, 2015, doi: 10.7455/ijfs/4.2.2015.a3.
- [16] H. Th. Byers, C. R. Dorf, and J. A. Nelson, *Technology ventures: management dell'imprenditorialità e dell'innovazione*. Italy: McGraw-Hill, 2011.
- [17] S. Mitchelmore and J. Rowley, 'Entrepreneurial competencies: a literature review and development agenda', *Int. J. Entrep. Behav. Res.*, vol. 16, no. 2, pp. 92–111, 2010.
- [18] A. D. Daniel, R. A. Costa, M. Pita, and C. Costa, 'Tourism Education: What about entrepreneurial skills?', *J. Hosp. Tour. Manag.*, vol. 30, pp. 65–72, 2017, doi: https://doi.org/10.1016/j.jhtm.2017.01.002.
- [19] A. Doyle, 'Chef skills list and examples', 2018. https://www.thebalancecareers.com/chef-skills-list-2062369 (accessed Aug. 24, 2018).
- [20] Tuatul. Mahfud, Pardjono, and B. Lastariwati, 'Chef's competency as a key element in food tourism success: A literature review', *Geoj. Tour. Geosites*, vol. 26, no. 3, pp. 1057–1071, 2019, doi: https://doi.org/10.30892/gtg.26329-417.
- [21] L. Pittaway and J. Cope, 'Entrepreneurship education: A systematic review of the evidence', 2006.
- [22] E. S. Mwasalwiba, 'Entrepreneurship education: A review of its objectives, teaching methods, and impact indicators', *Educ. Train.*, vol. 52, no. 1, pp. 20–47, 2010, doi: 10.1108/00400911011017663.
- [23] S. P. Nkirina, 'The challenges of integrating entrepreneurship education in the vocational training system: An insight from Tanzania's Vocational Education Training Authority', *J. Eur. Ind. Train.*, vol. 34, no. 2, pp. 153–166, 2010, doi: 10.1108/03090591011023998.
- [24] S. Jaana, 'Promoting entrepreneurship education: the role of the teacher?', *Educ. Train.*, vol. 52, no. 2, pp. 117–127, Jan. 2010, doi: 10.1108/00400911011027716.
- [25] T. G. Dugassa, 'The context of entrepreneurship education in Ethiopian universities', *Manag. Res. Rev.*, vol. 35, no. 3/4, pp. 225–244, Jan. 2012, doi: 10.1108/01409171211210136.
- [26] K. Smith and M. Beasley, 'Graduate entrepreneurs: Intentions, barriers and solutions', Educ. Train., vol. 53, pp. 722–740, 2011, doi: 10.1108/00400911111185044.
- [27] L. L. Lin, A. V. Peña, and C.-N. Chen, 'Factors related to the intention of starting a new business in El Salvador', *Asia Pac. Manag. Rev.*, vol. 22, no. 4, pp. 212–222, 2017, doi: https://doi.org/10.1016/j.apmrv.2017.07.008.
- [28] K. Tornau and M. Frese, 'Construct clean-up in proactivity research: A meta-analysis on the nomological net of work-related proactivity concepts and their incremental validities.', *Appl. Psychol. Int. Rev.*, vol. 62, no. 1, pp. 44–96, 2013, doi: 10.1111/j.1464-0597.2012.00514.x.
- [29] S. Z. Ahmad, A. R. Abu Bakar, and N. Ahmad, 'An evaluation of teaching methods of entrepreneurship in hospitality and tourism programs', *Int. J. Manag. Educ.*, vol. 16, no. 1, pp. 14–25, 2018, doi: https://doi.org/10.1016/j.ijme.2017.11.002.
- [30] D. A. Kolb, *Experiential learning: Experience as a source of learning and development*, 2nd editio. New Jersey: Pearson Education, Inc, 2015.
- [31] U. Ruhi, 'An experiential learning pedagogical framework for enterprise systems education in business schools', *Int. J. Manag. Educ.*, vol. 14, no. 2, pp. 198–211, 2016, doi: https://doi.org/10.1016/j.ijme.2016.04.006.
- [32] D. Dimov, 'From Opportunity Insight to Opportunity Intention: The Importance of Person–Situation Learning Match', *Entrep. Theory Pract.*, vol. 31, no. 4, pp. 561–583, 2007.
- [33] Ø. Gilje and O. Erstad, 'Authenticity, agency and enterprise education studying learning in and out of school', *Int. J. Educ. Res.*, vol. 84, pp. 58–67, 2017, doi: https://doi.org/10.1016/j.ijer.2016.05.012.
- [34] H. Matlay, 'Vocational education and training in SMEs: The role of Education+Training in promoting quality research', *Educ. Train.*, vol. 50, no. 1, pp. 67–70, 2008, doi: 10.1108/00400910810855540.

- [35] M. Simpson, N. Tuck, and S. Bellamy, 'Small business success factors: the role of education and training', *Educ. Train.*, vol. 46, no. 8/9, pp. 481–491, 2004, doi: 10.1108/00400910410569605.
- [36] M. de Lourdes Cárcamo-Solís, M. del Pilar Arroyo-López, L. del Carmen Alvarez-Castañón, and E. García-López, 'Developing entrepreneurship in primary schools. The Mexican experience of "My first enterprise: Entrepreneurship by playing", *Teach. Teach. Educ.*, vol. 64, pp. 291–304, 2017, doi: https://doi.org/10.1016/j.tate.2017.02.013.
- [37] T. R. Holcomb, R. D. Ireland, Jr. R. Michael Holmes, and M. A. Hitt, 'Architecture of entrepreneurial learning: Exploring the link among heuristics, knowledge, and action', *Entrep. Theory Pract.*, vol. 33, no. 1, pp. 167–192, 2009, doi: 10.1111/j.1540-6520.2008.00285.x.
- [38] D. Block, 'What would Karl say? The entrepreneur as ideal (and cool) citizen in 21st century societies', *Lang. Sci.*, vol. 70, pp. 16–25, 2018, doi: https://doi.org/10.1016/j.langsci.2018.04.006.
- [39] A. Gibb and A. Price, A Compendium of Pedagogies for Teaching Entrepreneurship. International entrepreneurship educators programme, 2014.
- [40] C. Bruyat and P. A. Julien, 'Defining the Field of Research in Entrepreneurship', *J. Bus. Ventur.*, vol. 16, no. 2, pp. 165–180, 2000.
- [41] C. Steyaert, "Entrepreneuring" as A Conceptual Attractor? A Review of Process Theories in 20 Years of Entrepreneurship Studies', *Entrep. Reg. Dev.*, vol. 19, no. 6, pp. 453–477, 2007.
- [42] J. Fiet, 'The Theoretical Side of Teaching Entrepreneurship', J. Bus. Ventur., vol. 16, no. 1, pp. 1–24, 2001.
- [43] A. Anderson, S. Drakopoulou-Dodd, and S. Jack, 'Entrepreneurship as Connecting: Some Implications for Theorising and Practice', *Manag. Decis.*, vol. 50, no. 5, pp. 958–971, 2012.
- [44] W. D. Bygrave and C. W. ve Hofer, 'Theorizing About Entrepreneurship', *Entrep. Theory Pract.*, vol. 16, no. 2, pp. 13–22, 1991.
- [45] D. Johnson, 'What is Innovation and Entrepreneurship? Lesson for Larger Organizations', *Ind. Commer. Training*, vol. 33, no. 4, pp. 135–140, 2001.
- [46] B. Honig, 'Entrepreneurship education: Toward a Model of Contingency-Based Business Planning', *Acad. Manag. Learn. Educ.*, vol. 3, no. 3, pp. 258–273, 2004.
- [47] E. A. Rasmussen and R. Sørheim, 'Action-Based Entrepreneurship Education', *Technovation*, vol. 26, no. 2, pp. 185–194, 2006.
- [48] A. Antonaci, F. M. Dagnino, F. Ott, M., Bellotti, R. Berta, and A. De Gloria, 'A Gamified Collaborative Course in Entrepreneurship: Focus on Objectives and Tools', *Comput. Hum. Behav.*, vol. 51, pp. 1276–1283, 2014.
- [49] U. Hytti and C. O'Gorman, 'What is "enterprise education"? An analysis of the objectives and methods of enterprise education programmes in four European countries', *Educ. Train.*, vol. 46, no. 1, pp. 11–23, Jan. 2004, doi: 10.1108/00400910410518188.
- [50] A. A. Gibb, 'In Pursuit of a New Enterprise and Entrepreneurship Paradigm for Learning: Creative Destruction, New Values, New Ways of Doing Things and New Combinations of Knowledge', *Int. J. Manag. Rev.*, vol. 4, no. 3, pp. 213–232, 2002.
- [51] B. Elkjaer, 'Social learning theory: learning as participation in social process', in *Handbook of Organizational Learning* and *Knowledge Management*, Malden, MA: Blackwell Pub., 2003, pp. 38–53.
- [52] M. Minniti and W. Bygrave, 'A dynamic model of entrepreneurial learning', *Entrep. Theory Pract.*, vol. 25, no. 3, pp. 5–16, 2001, doi: 10.1177/104225870102500301.
- [53] J. Fiet, 'The Pedagogical Side of Entrepreneurship Theory', J. Bus. Ventur., vol. 16, no. 2, pp. 101–117, 2001.
- [54] A. Gibb, 'Entrepreneurship: Unique solutions for unique environments. Is it possible to achieve this with the existing paradigm?', *Int. J. Entrep. Educ.*, vol. 5, pp. 93–142, 2007.
- [55] R. L. Jenson and I. R. Johnson, 'The enterprise resource planning system as a strategic solution', *Inf. Strategy Exec. J.*, vol. 15, no. 4, pp. 28–33, 1999, doi: 10.1080/07438613.1999.10744607.

- [56] G. Corbitt and H. C. Matthews, 'Teaching hands-on enterprise systems', in *Americas conference on information systems* (AMCIS), 2009.
- [57] R. L. Jenson, 'The enterprise resource planning system in support of business school curriculum integration', *Rev Bus Inf Syst*, vol. 4, no. 15–22, 2011.
- [58] C. S. Deale, 'Entrepreneurship education in hospitality and tourism: insights from entrepreneurs', *J. Teach. Travel Tour.*, vol. 16, no. 1, pp. 20–39, Jan. 2016, doi: 10.1080/15313220.2015.1117957.
- [59] M. Singh, School Enterprises: Combining Vocational Learning with Production. Germany: UNESCO, 1998.
- [60] D. Stern, J. Stone, C. Hopkins, M. McMillion, and R. Crain, School-based enterprise: Productive learning in American High Schools. San Francisco: Jossey-Bass Publications, 1994.
- [61] D. Dydimus, S. N. A. Masli, and S. Idek, 'School enterprise: nurturing students' entrepreneurial skills through sales booth', PEOPLE Int. J. Soc. Sci., vol. 5, no. 1, pp. 906–912, 2019.
- [62] D. I. Young, Enterprise for all: the relevance of enterprise in education. 2014.
- [63] A. A. Gibb, 'Small firms' training and competitiveness. building upon the small business as a learning organisation', *Int. Small Bus. J.*, vol. 15, no. 3, pp. 13–29, 1997, doi: 10.1177/0266242697153001.
- [64] D. Rae, 'Connecting entrepreneurial and action learning in student-initiated new business ventures: the case of SPEED', Action Learn. Res. Pract., vol. 6, no. 3, pp. 289–303, 2009, doi: 10.1080/14767330903301799.
- [65] C. Brentnall, 'The Bootleg Benchmarks: Eight Ideas for Careers and Enterprise Through the Curriculum', 2017. https://www.lancaster.ac.uk/work-in-progress/the-bootleg-benchmarks/ (accessed Nov. 04, 2019).
- [66] C. Henry, F. Hill, and C. Leitch, Entrepreneurship education and training. Aldershot, England: Ashgate Publishing Limited, 2003.
- [67] B. Johannisson, D. Halvarsson, and E. Lövstål, 'Stimulating and fostering entrepreneurship through university training-learning within an organizing context', in *Entrepreneurship education: A global view*, R. H. Brockhaus, G. E. Hills, H. Klandt, and H. P. Welsch, Eds. Aldershot, England: Ashgate Publishing Limited, 2001, pp. 318–340.
- [68] P. Robinson and S. Malach, 'Multi-disciplinary entrepreneurship clinic: Experiental education in theory and practice', in *Handbook of research in entrepreneurship education volume 1: A general perspective*, A. Fayolle, Ed. Cheltenham: Edward Elgar Publishing Limited, 2007, pp. 173–186.
- [69] David, Organization of Productive Work in Technical and Vocational Education in Kenya. France: UNESCO, 1985.
- [70] T. Usman, 'Model Production Unit of Vocational Schools in The Province', Yogyakarta Muhamadiyah University, 2012.
- [71] A. Gibb, 'Can we build "effective" entrepreneurship through management development?', *J. Gen. Manag.*, vol. 24, no. 4, pp. 1–21, Jun. 1999, doi: 10.1177/030630709902400401.
- [72] R. K. Yin, Case study research: Design and methods, 3rd ed. Thousand Oaks, CA: Sage, 2003.
- [73] M. B. Miles and M. A. Huberman, *Qualitative data analysis: an expanded sourcebook*, 2rd ed. London: Sage Publication, 1994.
- [74] I. Newman and J. H. Hitchcock, 'Underlying agreements between quantitative and qualitative research: The short and tall of It all', *Hum. Resour. Dev. Rev.*, vol. 10, no. 4, pp. 381–398, Jul. 2011, doi: 10.1177/1534484311413867.
- [75] H. Simons, Case study research in practice. London: Sage, 2009.
- [76] M. D. LeCompte, 'Analyzing qualitative data', *Theory Pract.*, vol. 39, no. 3, pp. 146–154, Aug. 2000, doi: 10.1207/s15430421tip3903_5.
- [77] C. Marshall and G. Rossman, Designing qualitative research, 5th ed. Thousand Oaks, CA: SAGE Publications, 2011.
- [78] R. Metcalfe, 'Can entrepreneurship be taught?', Tex. Educ. Rev., vol. 1, no. 1, 2013.
- [79] Central Bureau of Statistics, 'Indonesian employment situation in February (Indonesian version)', Jakarta, 2018.
- [80] S. Wiratno, 'The implementation of enterpreneurship education in the higher education', *J. Pendidik. Dan Kebud.*, vol. 18, no. 4, pp. 453–466, 2012.
- [81] B. Trilling and C. Fadel, 21st Century Skills: learning for Life in Our Times, First Edit. San Francisco: Jossey-Bass, 2009.

International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 08, 2020 ISSN: 1475-7192

- [82] K. Vaughan, Workplace Learning: A Literature Review. Auckland, 2008.
- [83] D. H. Pink, A Whole New Mind: Why Right-Brainers Will Rule The Future. New York, NY: Riverhead Books, 2006.
- [84] C. Esther and L. Rebekah, Assessment of Transversal competencies in education: Policy and practice in the Asian-Pacific Region. Bangkok: UNESCO, 2016.
- [85] OECD, Education at a Glance 2009: OECD Indicators. Washington, DC: OECD, 2009.
- [86] S. M. Wechsler *et al.*, 'Creative and Critical Thinking: Independent or Overlapping Components?', *Think. Ski. Creat.*, vol. 27, no. 1, pp. 114–122, 2017, doi: 10.1016/j.tsc.2017.12.003.
- [88] M. Nurtanto, P. Pardjono, Widarto -, and S. D. Ramdani, 'The Effect of STEM-EDP in Professional Learning on Automotive Engineering Competence in Vocational High School', *J. Educ. Gift. Young Sci.*, vol. 8, no. 2, pp. 633–656, Jun. 2020, Accessed: Mar. 18, 2020. [Online]. Available: https://dergipark.org.tr/en/pub/jegys/645047.
- [89] M. Nurtanto, H. Sofyan, P. Pardjono, and S. Suyitno, 'Development model for competency improvement and national vocational qualification support frames in Automotive technology', *Int. J. Eval. Res. Educ. IJERE*, vol. 9, no. 1, pp. 168– 176, Mar. 2020, doi: 10.11591/ijere.v9i1.20447.
- [87] A. Dasmani, 'Challenges facing technical institute graduates in practical skills acquisition in the Upper East Region of Ghana', *Int. J. Work-Integr. Learn. Asia-Pac. J. Coop. Educ.*, vol. 12, no. 2, pp. 67–77, 2013.